

ABSTRACT

A composition used in making wallboard is provided. The composition requires at least fly ash, water and a first binder. The composition is located between two members that together form the wallboard. In one embodiment, at least the first binder is part of a foamable solution and part of a binder solution. In this embodiment, the fly ash, foamable solution and binder solution are combined in a mixer. The output of the mixer can be regulated based on detection of a magnitude related to viscosity of the composition. During the process for making the wallboard, the composition is sandwiched between the two members and subject to both preheating and subsequent heating stages. During the preheating, a sufficient number of bubbles associated with the binder are maintained in order to achieve a predetermined density based on the closed cells that are formed after the water evaporates. Additionally, any expansion during the subsequent heating step is controlled so that it is less than expansion of the composition during the preheating.

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